

**RETURNING RINGING SIGNALS THROUGH
THE TIP AMPLIFIER OF SUBSCRIBER-LINE INTERFACE CIRCUITRY**

ABSTRACT OF THE DISCLOSURE

5 A subscriber-line interface circuit (SLIC) has tip and ring amplifiers connected to the tip and ring
lines, respectively, of customer premises equipment (CPE). The SLIC returns the ringing signal
(provided to the CPE from a power supply connected to the CPE's ring line), to ground or to battery,
through the SLIC's tip amplifier. In one embodiment, the SLIC has three switches: S1 connecting the
power supply to the ring line, S2 connecting the ring amp to the ring line, and S3 connecting the tip amp
10 to the tip line. During ringing, S1 and S3 are closed to return the ringing signal to ground through the tip
amp, which is preferably driven to saturation during ringing to reduce power consumption. By
eliminating the fourth switch that appears in prior-art SLICs (e.g., connecting the tip line to ground),
SLICs of the present invention can be smaller and therefore less expensive to implement.